

R-GROUP

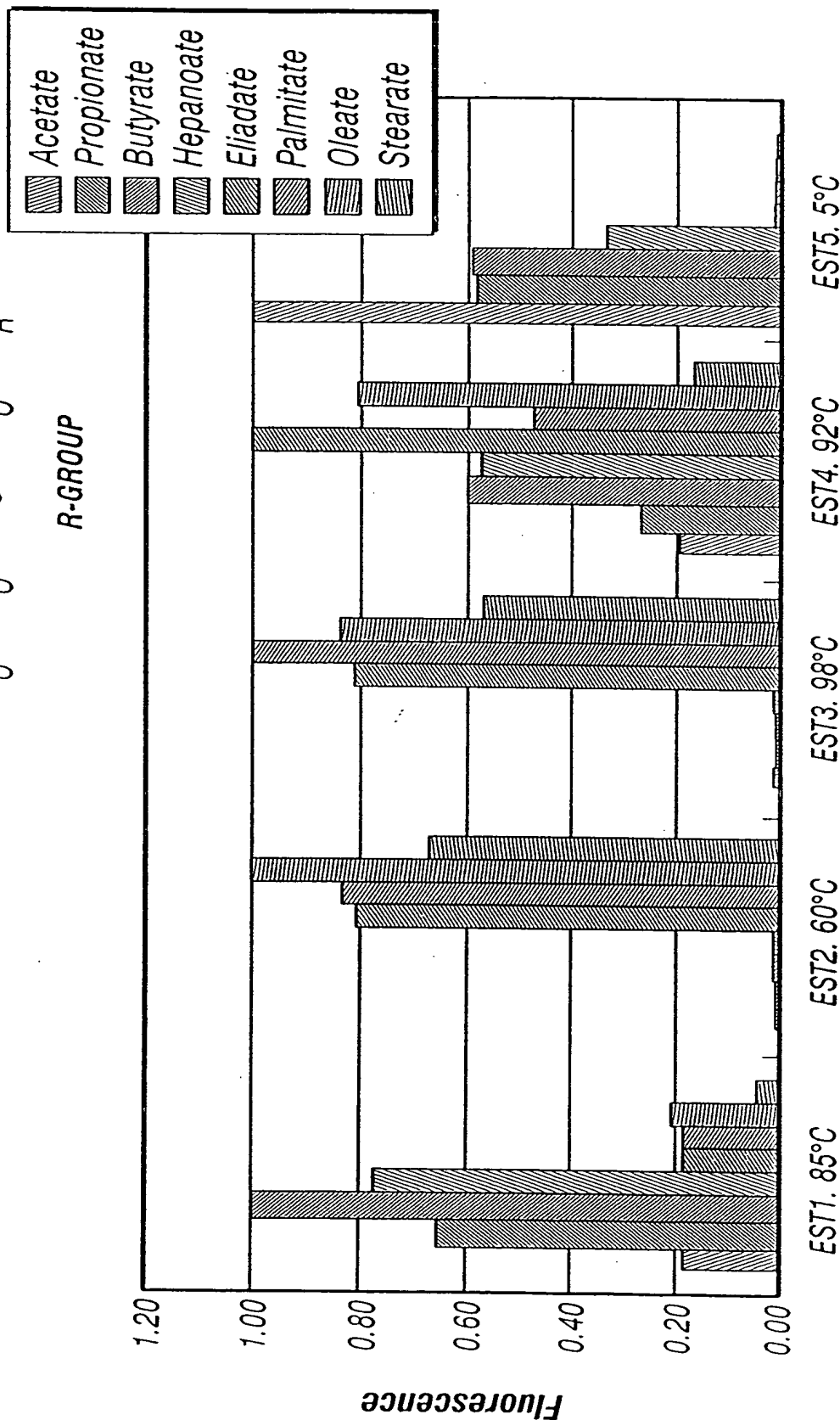


FIG. 1

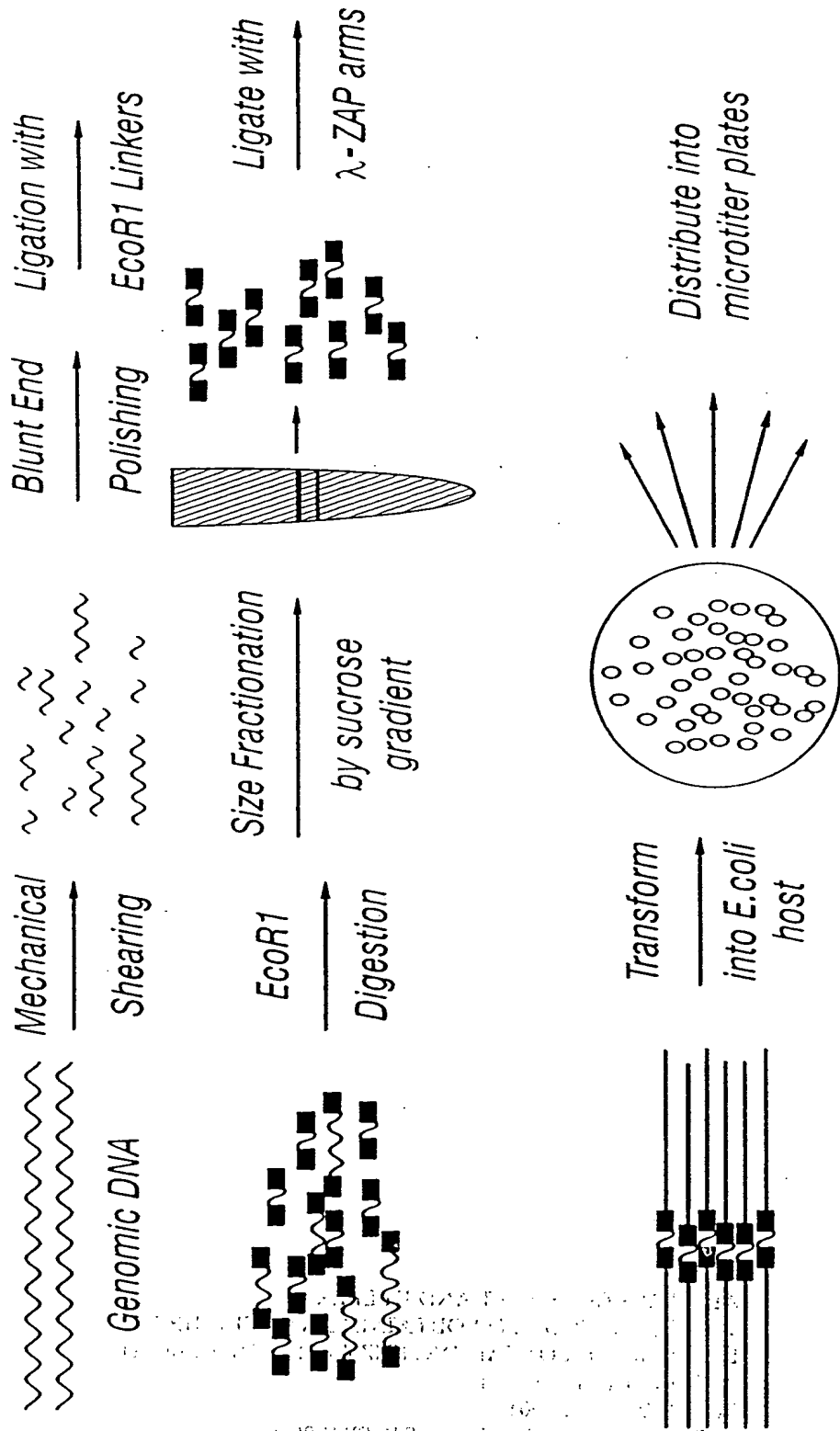


FIG. 2

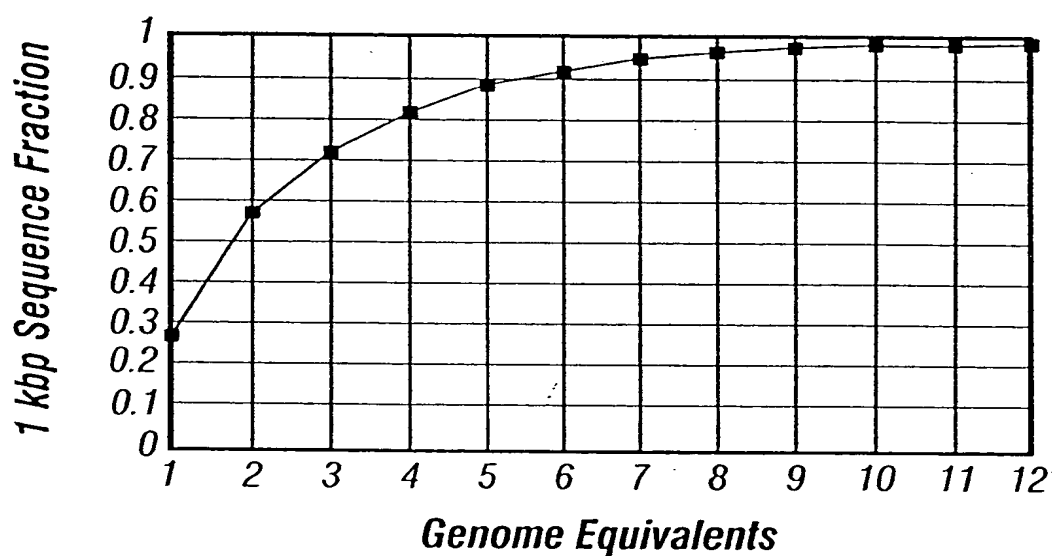


FIG. 3

FIG. 3 is a line graph showing the relationship between Genome Equivalents (X-axis) and the 1 kbp Sequence Fraction (Y-axis). The X-axis ranges from 1 to 12, and the Y-axis ranges from 0 to 1.0 in increments of 0.1. The data points are connected by a smooth curve, showing a rapid increase in the sequence fraction as genome equivalents increase, eventually plateauing near 1.0.

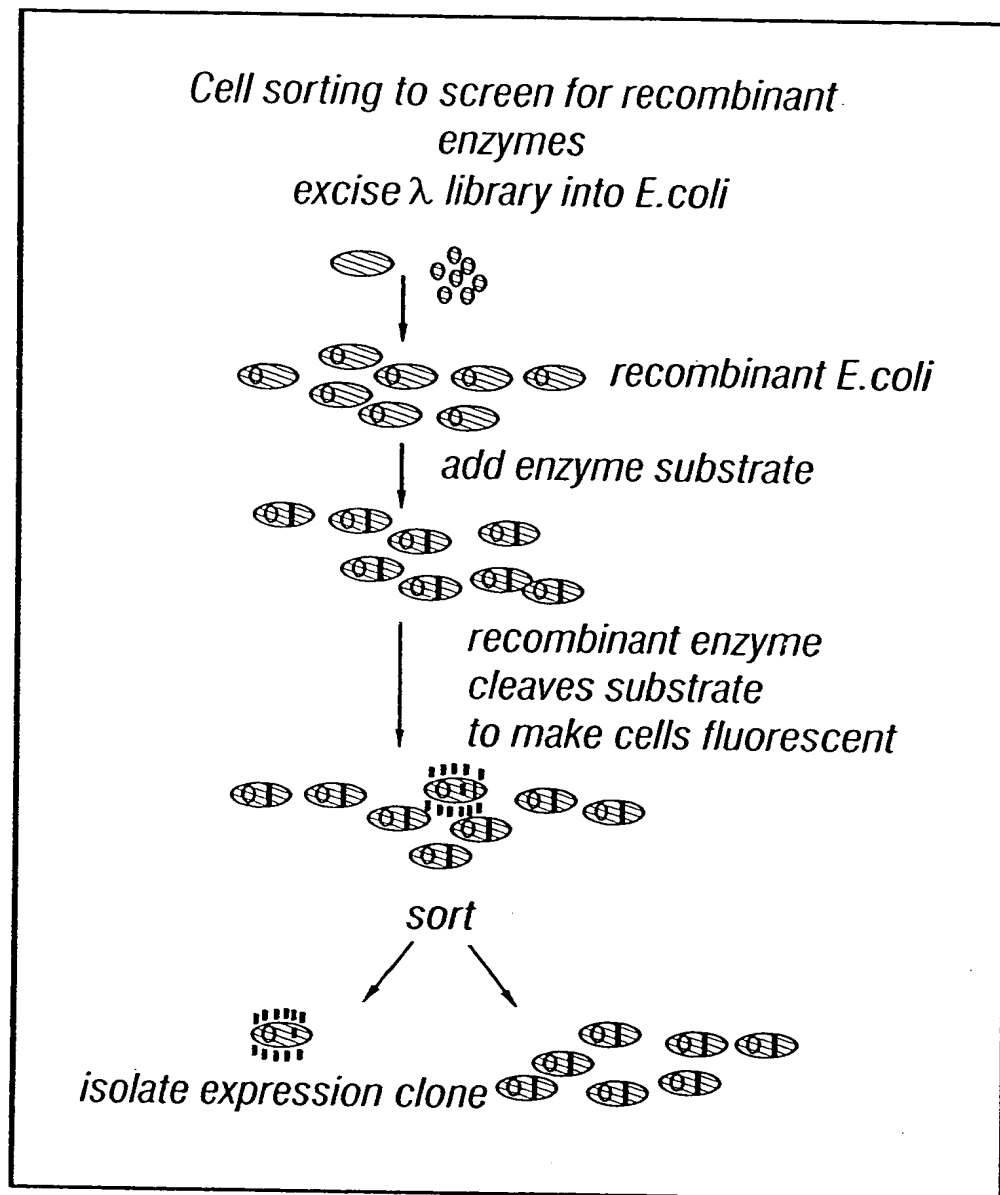


FIG. 4
 A schematic diagram of a cell sorting method for screening recombinant enzymes. The process involves excising a λ library into *E. coli*, adding an enzyme substrate, and sorting the cells based on fluorescence to isolate an expression clone.



β -Gal clone with different substrates

- cells were stained with FDG, CMFDG or C12FDG, incubated for 30 min. at 70°C, spotted onto a slide and exposed to UV light.
- bright spot indicates staining of cells



FDG

C12FDG

CMFDG

FIG. 5

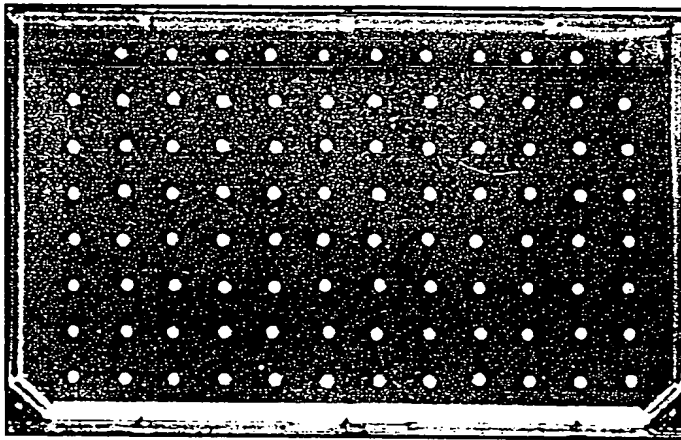


FIG. 6

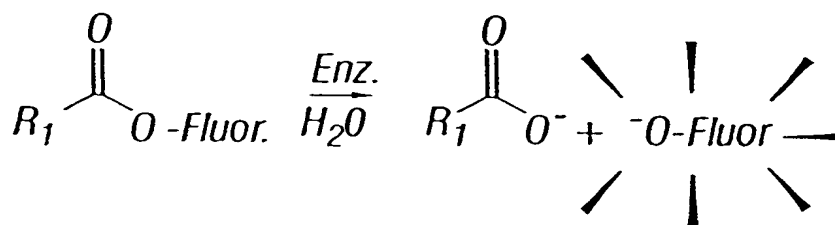


FIG. 7



FIG. 8



FIG. 9

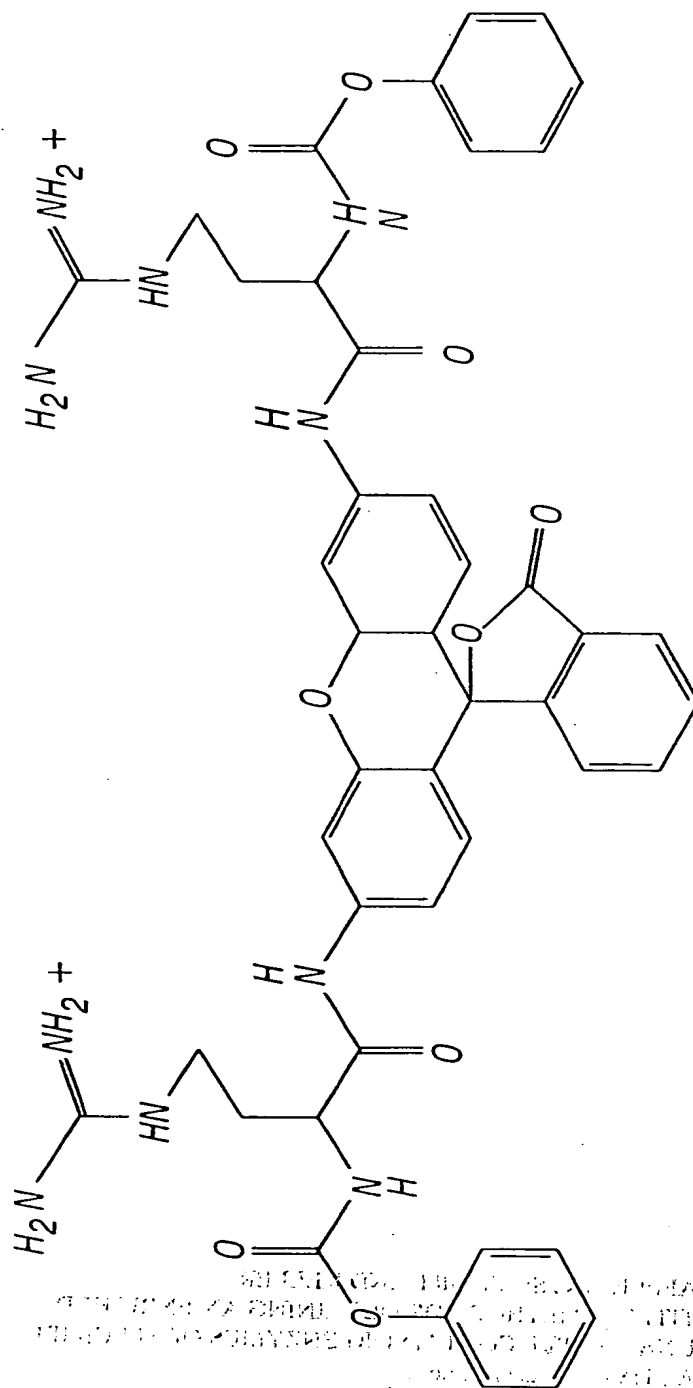


FIG. 10

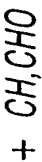
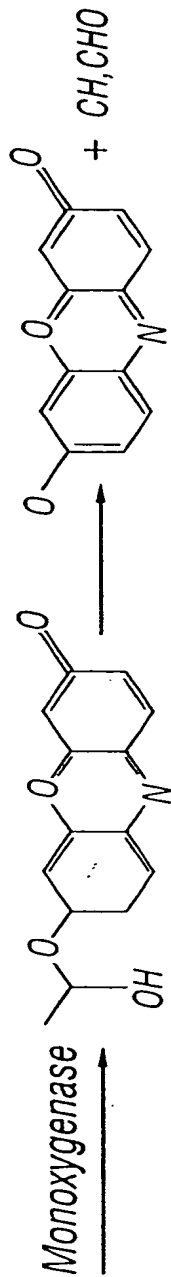
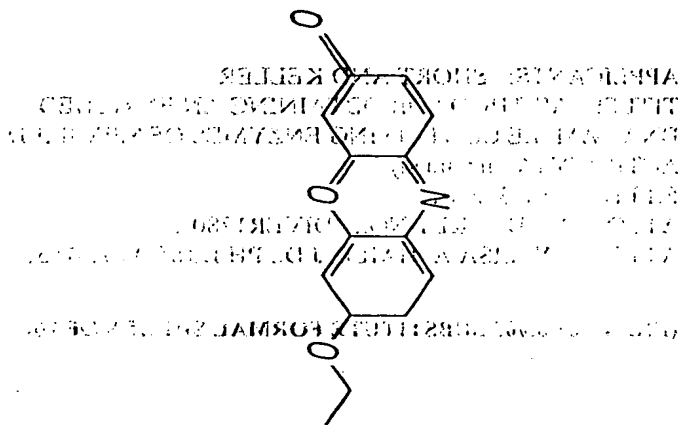


FIG. 11

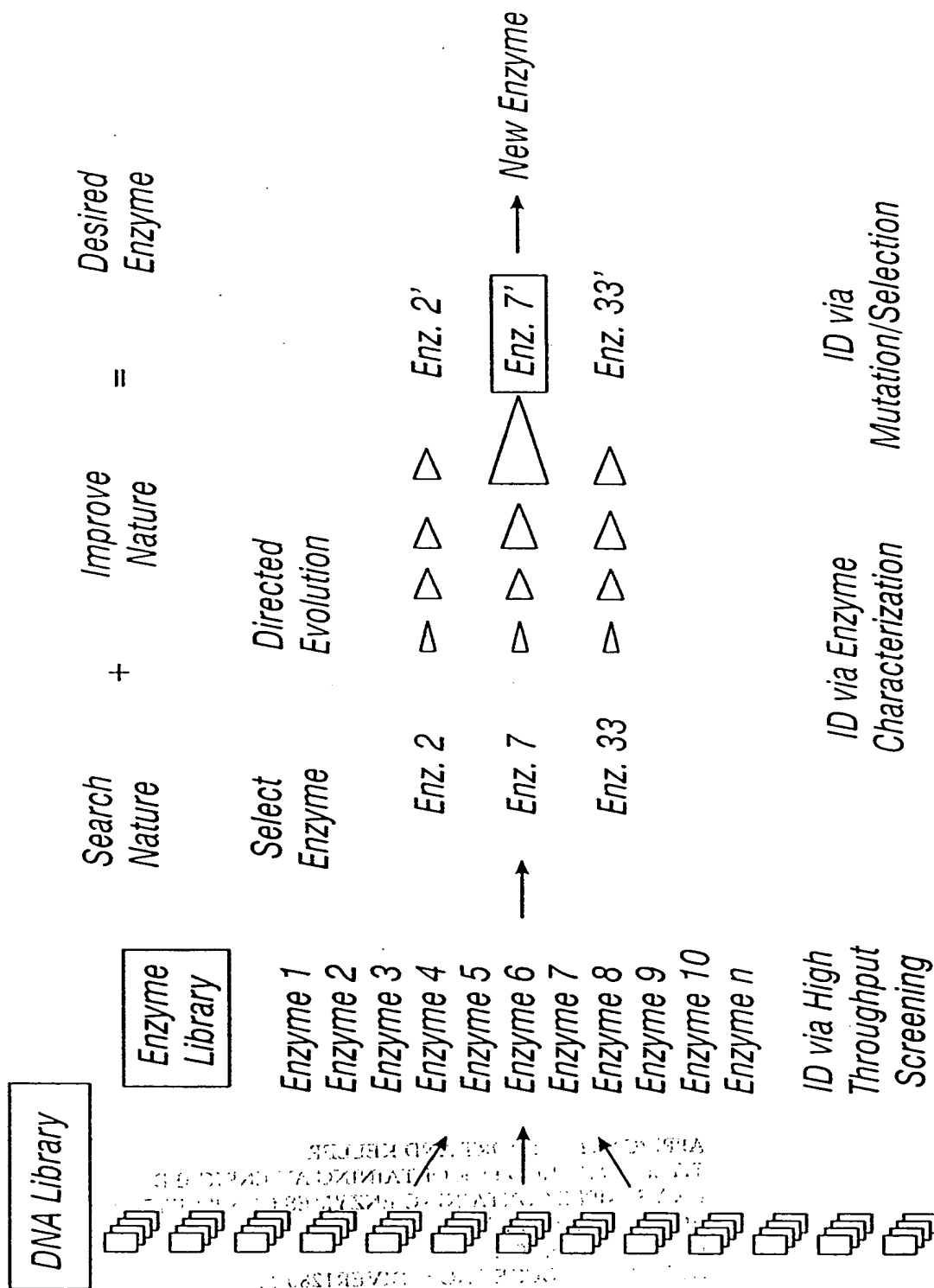


FIG. 12

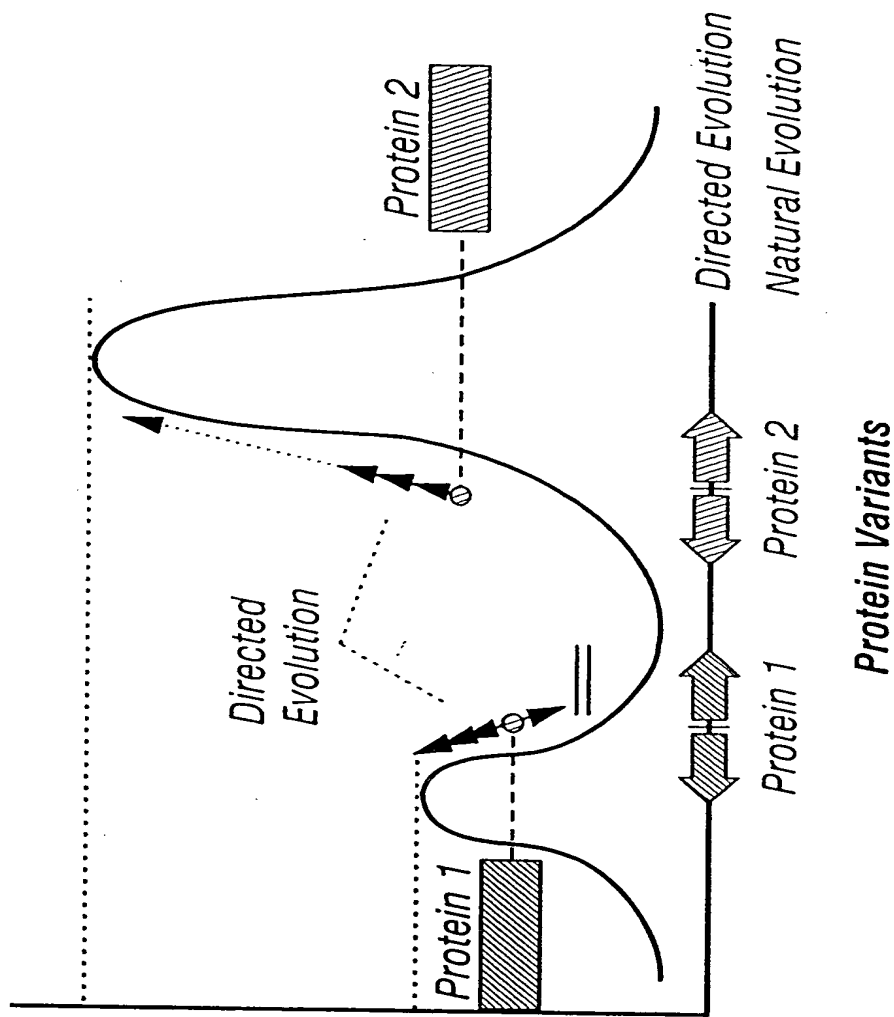
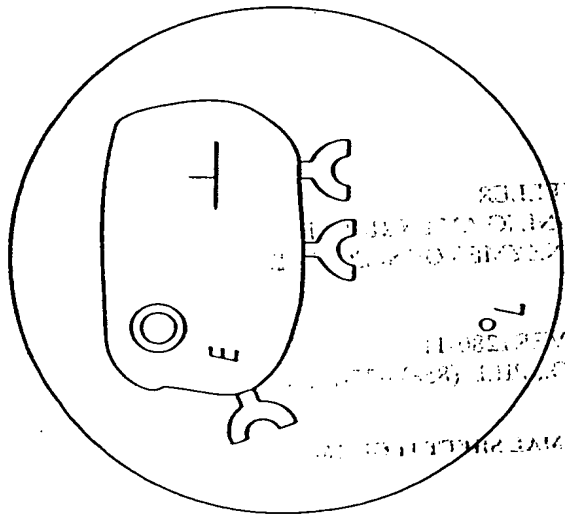
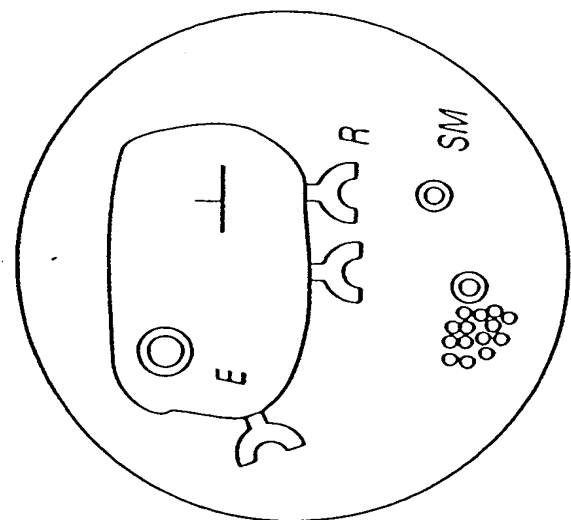
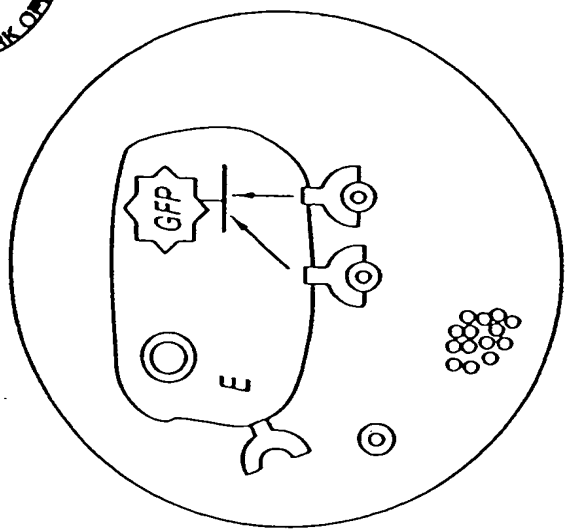


FIG. 13

- Stability
- Solvent Stability
- Expression Level
- Buffer Compatibility
- Process Compatibility



Receptor binding of small molecule & GFP reporting

Growth and expression of small molecule from library

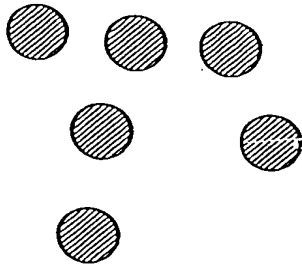
Co-encapsulation Library + Eukaryote

E=Eukaryotic assay organism L=Large insert library SM=Small molecule
GFP= Green fluorescent protein R=Eukaryotic receptor

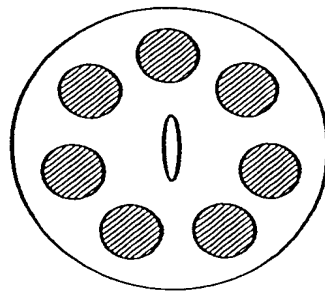
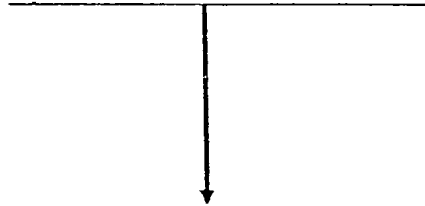
FIG. 14



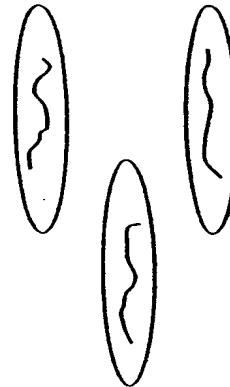
Test organisms



encapsulate

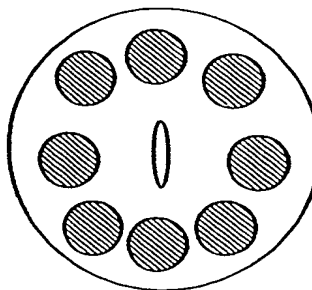
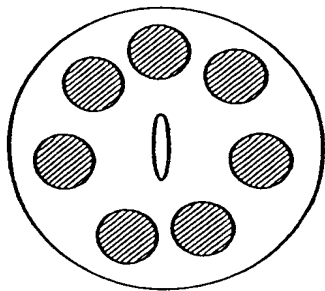


Pathway clones



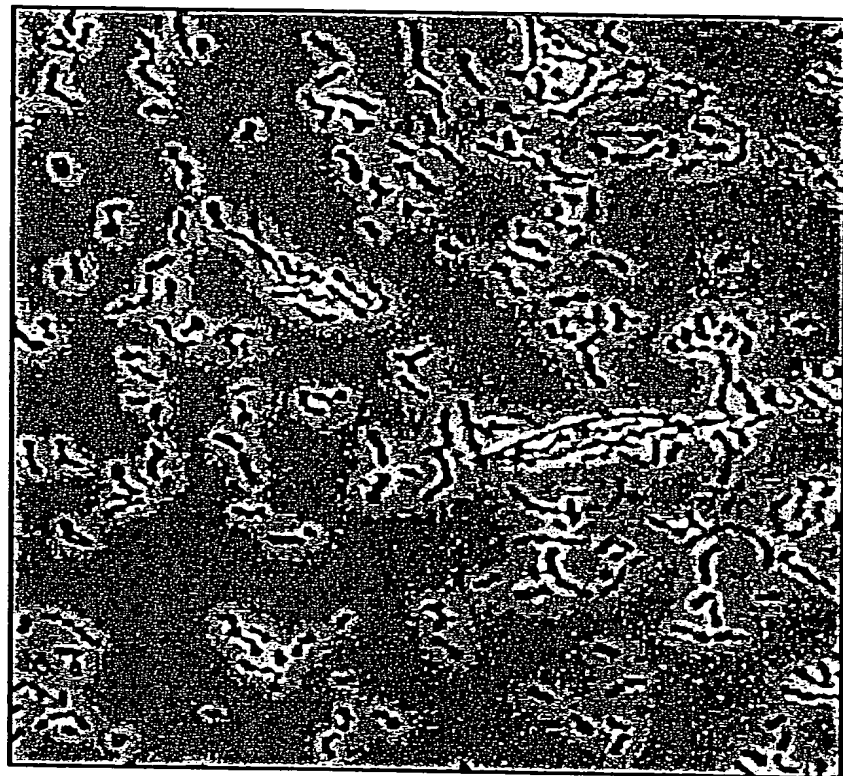
*live/dead or other
activity stain*

sort

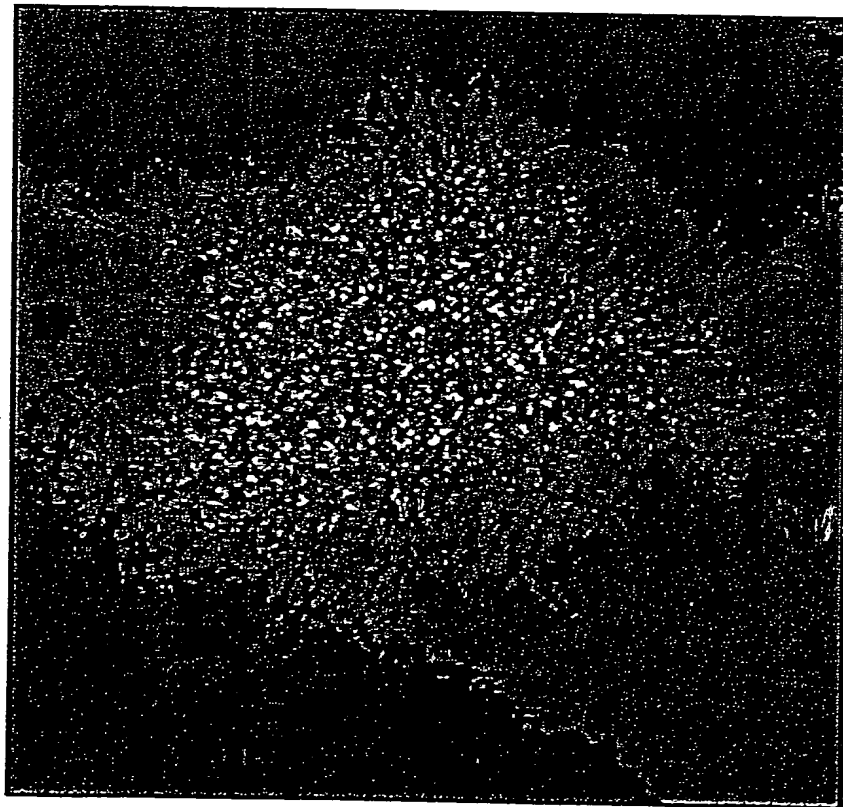


*bioactive expression
(e.g. live/dead, growth rate,
metabolic stains etc.)*

FIG. 15



Streptomyces "diversa"
Unicells



Streptomyces lividans
mycelia

FIG. 16

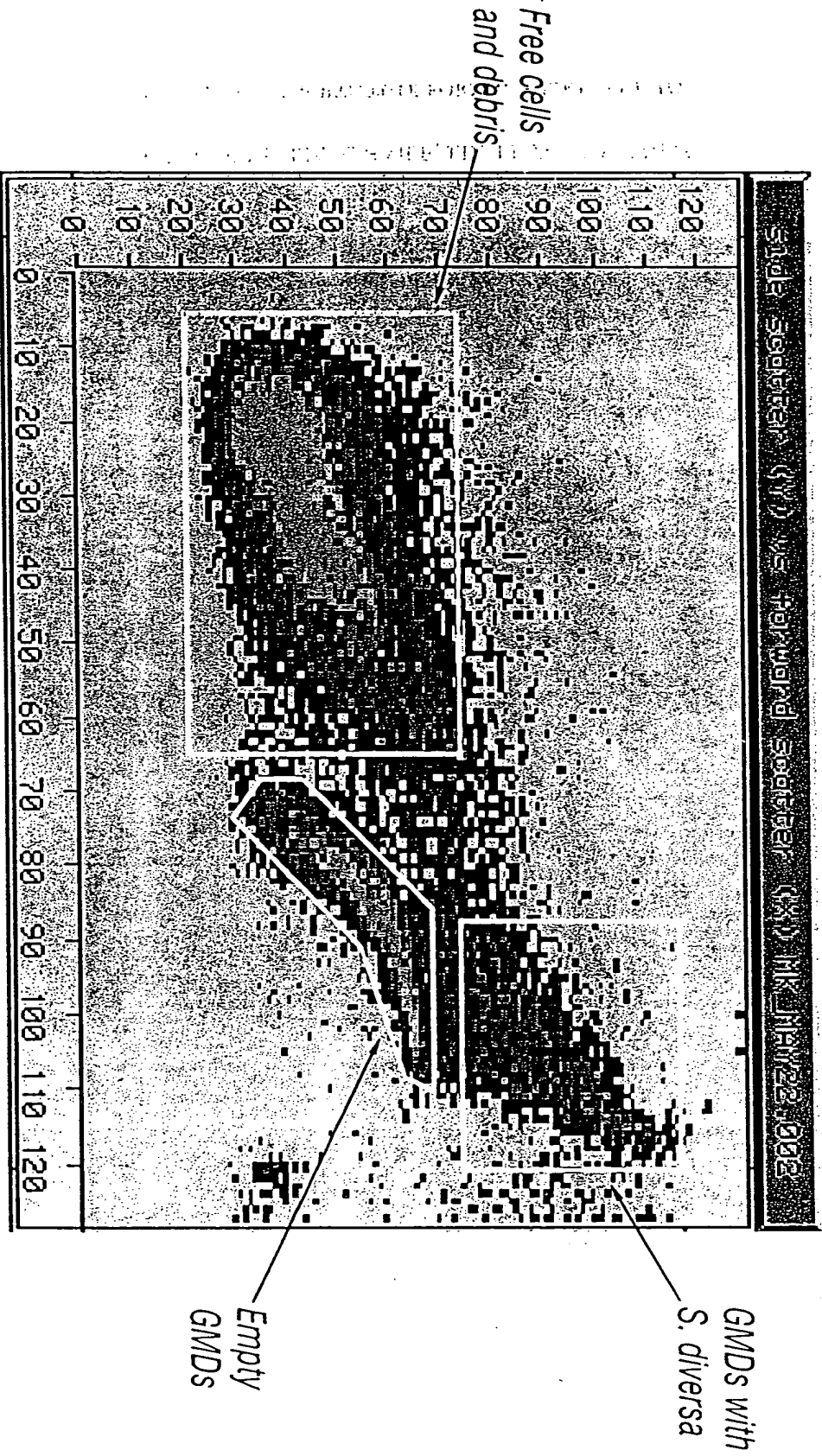


FIG. 17

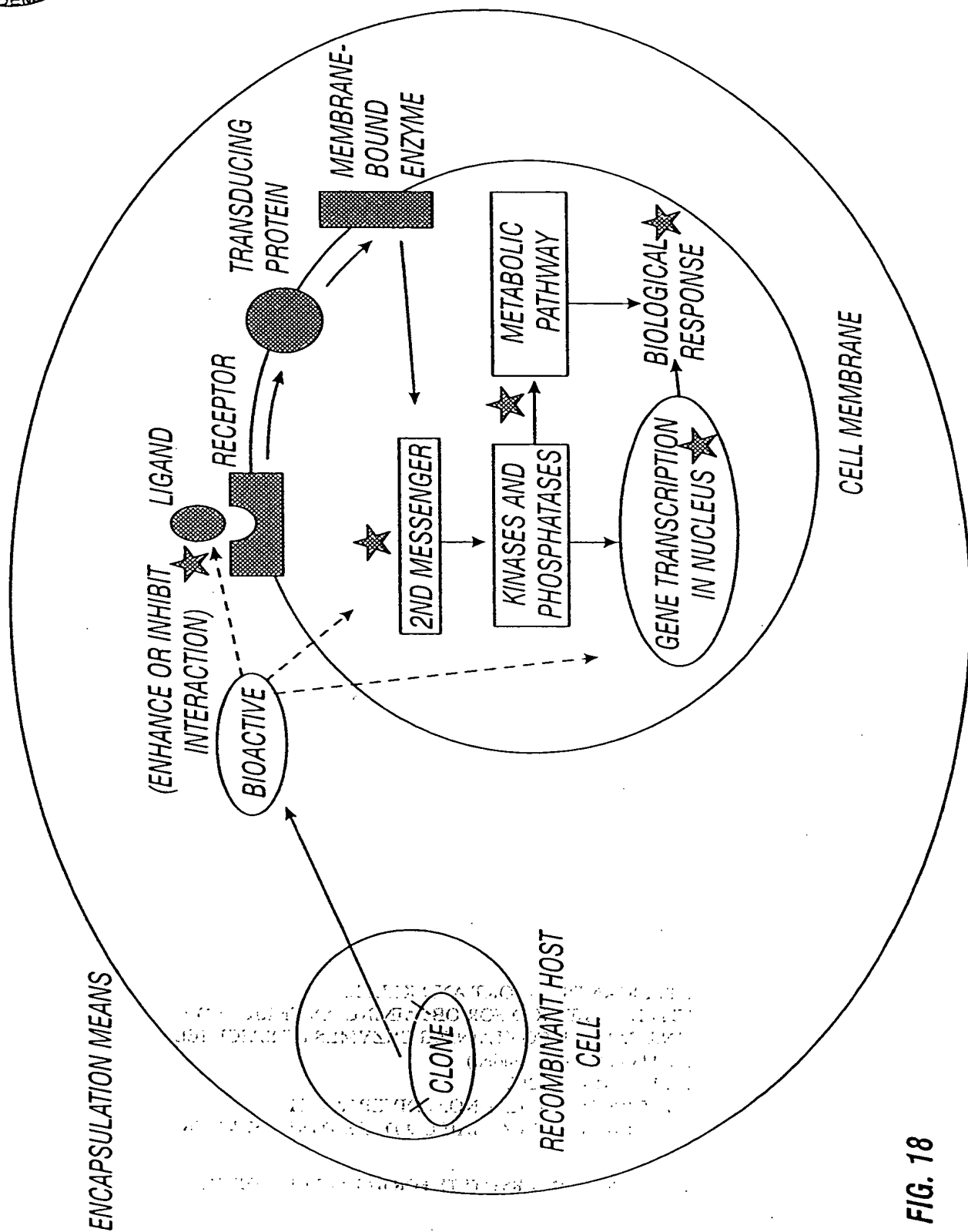


FIG. 18